SUGAR BYTES

WOW2 iPad Edition


Manual

Table of contents

What is WOW2

WOW2 is a state of the art filter, offering 21 high quality filter types. Each filter type can be operated in vowel mode, giving you the best vocal sounds available. Wow2 comes with the craziest modulation system you will ever find. Modulators can modulate and randomize each other and the wobble generator is on board for rhythmic control voltage without headache. Enjoy the juiciest, punchiest filters with close to analog quality, only available in WOW2.

WOW2 iPad Controls

Additionally to the fully functional WOW2 product, we created another control screen, especially for the iPad Edition. Here you find all controls explained:
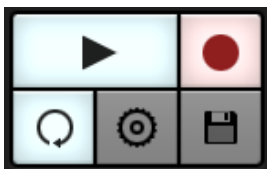
Audio Player Menu
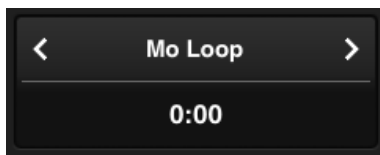
Here the currently loaded track is displayed. Tap the menu to load another track.
Load files from the list, from the iTunes Library or use AudioPaste™.
(see Select File)

You can load any number of tracks from the iTunes Library and access them with the arrow buttons.

Transport controls

Play: plays or stops the current track
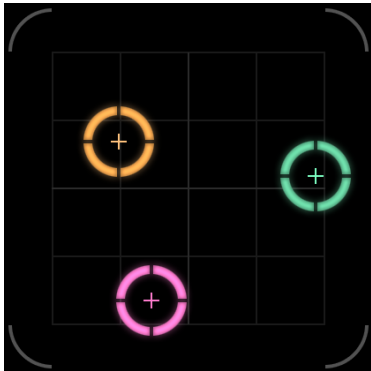**Loop:** repeats the played track
Record: starts audio recording of the WOW2 Output
Export File: export or delete audio files
Settings: settings related to the iPad Edition

XY-Pads

Control up to 6 parameters simultaneously, using the XY-Pad. The XY offers 3 handles for 3 fingers. Each handle has its own color and parameter assignment.

Assign Parameter
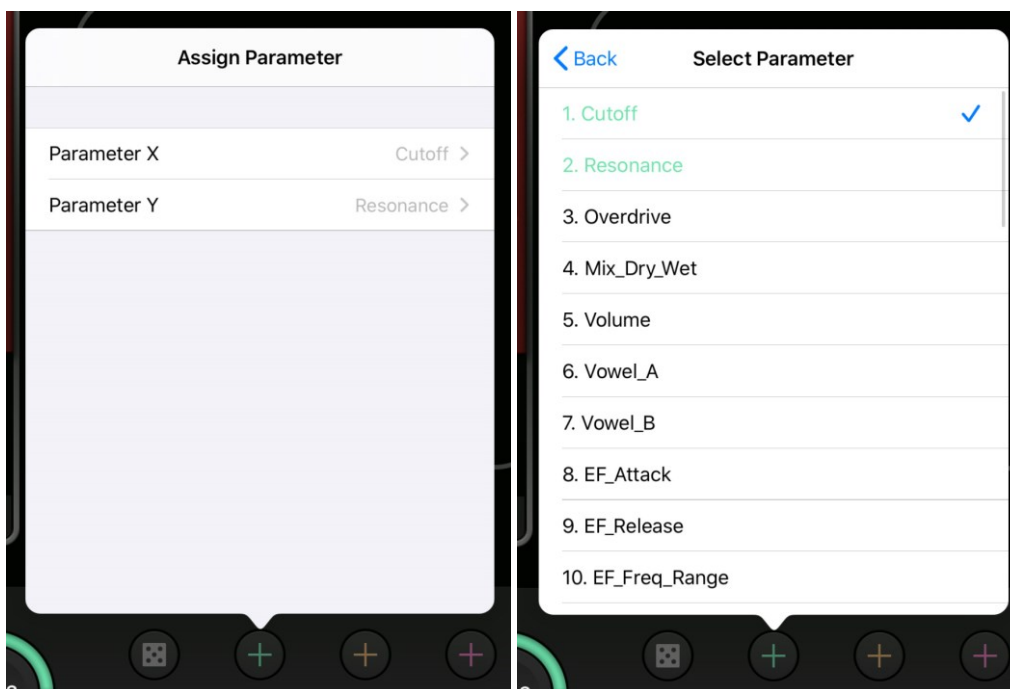
Tap one of the « + » buttons, to assign the related handle.
The Assignment Menu opens. Here you can assign the **x-axis** and the **y-axis** to a parameter of your choice.

Assigned parameters are indicated by the related handle-color.
The **« Dice »** button creates a random assignment for the selected slot.

Assignment Banks

4 banks are available for your XY-Pad assignments. These banks are saved on the iPad and will never change, unless you change them.

BPM Control
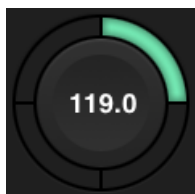
WOW2 requires tempo information in order to synchronize loopers, slicers or delays to the beat.

Tap the BPM Control panel to match the tempo or move the BPM control up or down to manually set up the tempo.

The tempo of audio loops with a length up to 32 bars will be analysed automatically during load.

WOW2 iPad Settings

Tapping on the gearwheel icon opens the Settings Screen where you find some global settings and functions. Here you can adjust the way WOW2 operates in certain MIDI and Audio connections, enable or disable Ableton link as well as preset file sharing between Aparillo iOS and other devices via iCloud synchronization.

Audio Settings

Mode

Here you can select the audio input source. For audio input you can choose the internal audio player or the mic/line input of your iPad.

Input / Output

If a multichannel sound card is connected, you can choose all available in- and out ports here.

Audio Buffer

The Audio Buffer section allows you to change the audio latency.
If you experience crackles in the audio signal, you should use a larger buffer size.

Run audio in background

Switch ON to keep WOW2 playing when you're working in other apps.

MIDI Settings
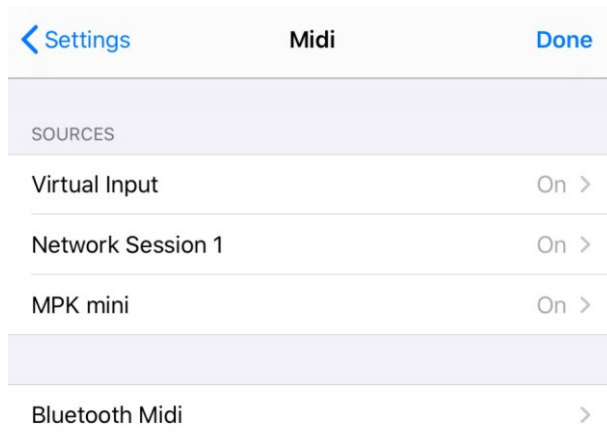
All connected MIDI devices are listed here. Supported MIDI Types:

- CoreMIDI virtual ports (to/from other apps)
- CoreMIDI network (as a session originator or receiver to/from Mac or PC)
- CoreMIDI physical devices (USB MIDI Controller)

WOW2 receives MIDI from other apps at its Virtual Input.
Therefore WOW2 has to be selected in the MIDI sending app.

The following MIDI input settings are available:

The following MIDI output settings are available:
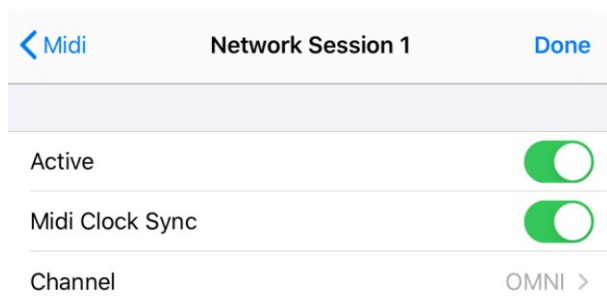
Ableton Link

When activated, Link will sync tempo across apps.
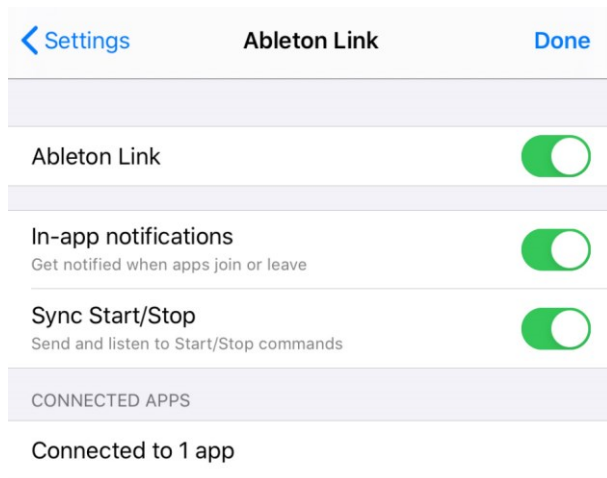
Find out more about Link here.

iCloud Sync

Enable or disable preset file sharing between WOW2 iOS and multiple devices via iCloud synchronization.

Recording Settings

Here you find all settings related to recording audio. Determine how to start and stop the recording and create loops with the record length feature.

‹ Settings	**Recording**	Done
LENGTH		
Manually		
1 Bar		
2 Bars		
4 Bars		
8 Bars		
START / STOP		
Manually		✓
Start with Play		
Start & Stop with Play		

Select File

Load a track from the factory content, iTunes library, use Audiopaste or AudioShare, or select a file from the Factory/Shared folder.
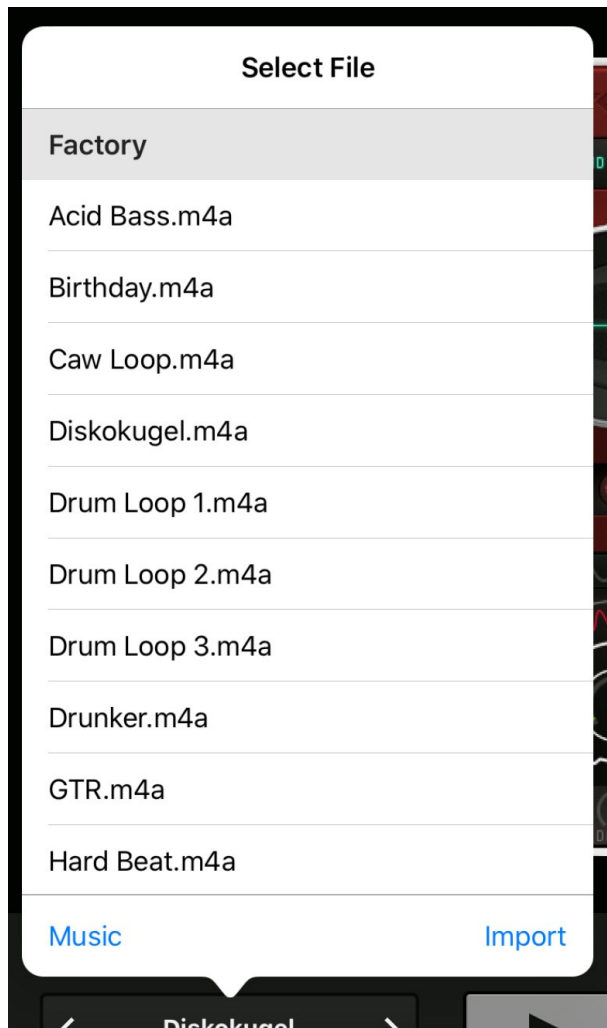
The recorded audio file will be automatically available in the Select File menu.

The "Music" button will take you to your iTunes library, "Import" to AudioCopy and AudioShare (requires installation of these apps on your iPad) and to File Import, which lets you browse right from inside the standard iOS Files app (requires iOS 11 and higher).

Supported File Formats: .wav, .aiff and .m4a

Export File

Here you find the list of your recorded audio files.
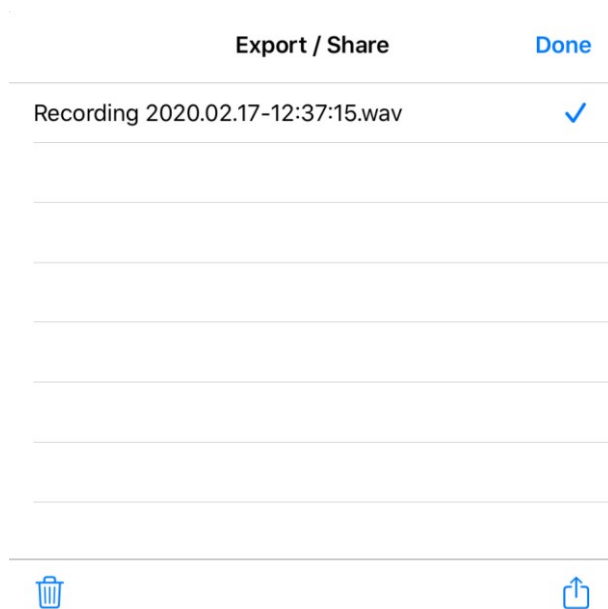
Tap the Trash icon to get rid of unwanted data.

Tap the Action (Share) icon to put the recorded file into other apps.
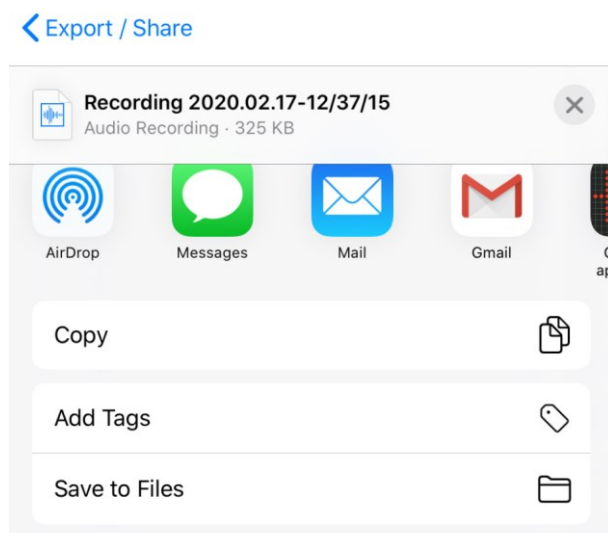
Here you'll find all compatible apps on your device which support the iOS share menu.

Connectivity

iCloud Synchronization

Through iCloud, you'll be able to share your saved presets across multiple devices including your desktop computer.
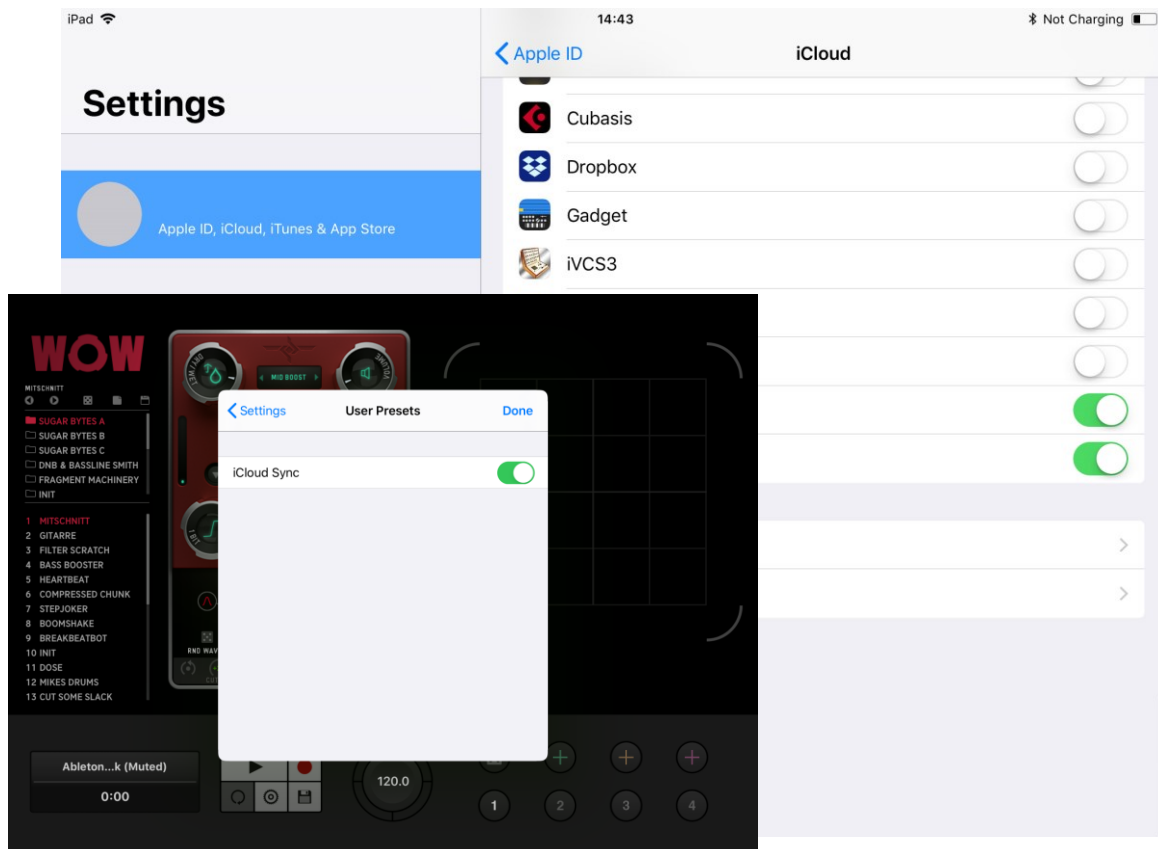
This feature is disabled by default. To sync WOW2 across your devices, launch Settings. Then tap your Apple ID banner, tap iCloud and ensure iCloud Drive as well as iCloud sync permission for WOW2 is enabled. After that head over to your WOW2 iOS version and open the WOW2 Settings. There choose iCloud, tap iCloud and set iCloud to On. Once activated, presets you save in the WOW2 iOS version are synced automatically to your iCloudDrive.

To share a preset from your **WOW2 iOS version to your computer**, you'll need to drag and drop or copy/paste the preset from **iCloudDrive/WOW2/Presets/User** into **~/Documents/Sugar Bytes/WOW2/Presets/User**

To share a preset from your **computer to your WOW2 iOS version**, you'll need to drag and drop or copy/paste the preset from **~/Documents/Sugar Bytes/WOW2/Presets/User** into **iCloudDrive/WOW2/Presets/User**

MIDI Learn

Long-press any control and press the left MIDI socket symbol to assign incoming MIDI CCs.

Tap somewhere into the GUI area to close the popup window.

To erase the assignment, open up the popup window and press the crossed out MIDI socket symbol.

WOW2 as a plugin inside your favorite portable DAW

WOW2 supports the Audio Unit V3 standard making it possible to load multiple instances into any DAW that supports AUv3.

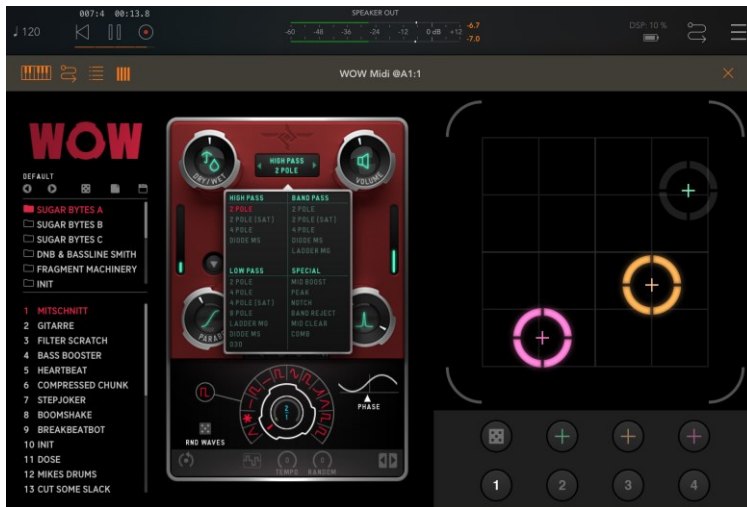It will be up to the host app on how it implements the AUs menu, but in most host apps you'll find the menu where other effects or editing tools can be applied. Here is how to add WOW2 in…

AUM:
Tap the Inserts & Effects slot of a Channel and load WOW2 from the list of Audio Unit Extensions.

Beatmaker:
Tap the "Add Effect" button from the FX panel, go to Audio Unit / IAA Effect and select WOW2 from the list of Audio Units V3.

Cubasis:
Select the track you wish to add WOW2 to. Open the track Inspector and select the Insert or Send effects panel. In the effects menu tap one of the slots and select WOW2 from the Audio Units category.

GarageBand:
Select Plug-ins & EQ from the mixer panel on top left and tap the Edit button.Tap the plus button of a free FX slot to select WOW2 from the list of Audio Unit Extensions.

Auria:
Press the "FX" button on a track to open the "ChannelStrip" window and load WOW2 as an AU effect (green fond).

Audiobus:
Press on the + button on an empty effect slot of Audiobus and select WOW2 from the list of Audio Units

Modstep:
Tap the "Browser" button, go to Effects and select WOW2 from the list of AU effects.

WOW2 Structure

The Presets
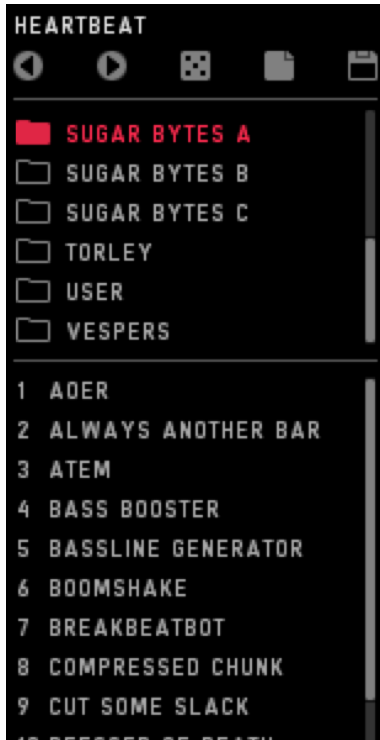
In the left half of the screen you will find the preset browser.

The top line shows the current preset name and offers different file operations.

　　Step through the presets, forward or backwards.

　　Load a random preset.

　　Loads a clean preset to start from.

　　Opens a save dialog to save your preset.

You can add your own preset folders, subfolders are not allowed.

Find the WOW2 presets in Documents/Sugar Bytes/WOW2/Presets.

Filter Section

The red part of WOW2 includes the actual filter section.

It features Dry/Wet, Level, Cutoff, Resonance, Vowel Mode and Distortion.
You can choose from 7 distortion types, 21 filter types and use the Vowel Mode here. All these Parameters can be modulated. Long press a parameter, to assign modulation and MIDI Learn to it.
Additionally, all modulation amounts are available on the bottom of the modulation section, in order to have these controls automated and MIDI-learned. This means, WOW2 can assign a modulation from source to target, but also from target to source, which is most convenient.

Classic Controls

Cutoff

The biggest knob is the Cutoff control. Basically, it determines the cutoff frequency, which is the frequency where the filter works. This frequency is boosted by the resonance and determines where the Lowpass cuts high frequencies off, or where the Bandpass lets the signal through.

In Vowel Mode, the Cutoff Control morphs from Vowel A to Vowel B.

Resonance

The resonance is actually the feedback level of the filter circuit. Turning this control up will expose the cutoff frequency. In some filter types the resonance can introduce « self-oscillation » , which turns the filter into a sine oscillator which oscillates at cutoff frequency, turning WOW2 into a dub siren, or whatever you make of it.

If you run in unwanted self-oscillation, use the Envelope Follower to push the Reso up to where you want it, while silence will hold the Reso below self-oscillation.

Distortion

The Distortion Parameter always shows the name of the selected Distortion type. If the Distortion Parameter is set to zero, the distortion is bypassed. In the upper half of the distortion menu you find the Signal Flow control. Put the Distortion in front or behind the filter for a vast range of sounds.

7 **Distortion types** are available:

1. **Parabolic**. Tube-like overdrive, creating a rich harmonic spectrum, four times oversampled for finest harmonics without aliasing.
2. **Hyperbolic**. Tube-like double-drive for rather angry distortions. Four times oversampled for crystal clear harmonics without aliasing.
3. **Diabolic**. Diode-like distortion, for the apocalyptic punch. Four times oversampled for high definition apocalypse without aliasing.
4. **One Bit**. Turns everything into a pulse wave. Four times oversampled.
5. **Sine**. The audio signal drives a sine function. Creates sounds from roasted ham to spider invasion. Four times oversampled.
6. **Crush**. The bit crusher you would have asked for.
7. **Digitize**. The sample rate reducer you would ask for.

Level

The Level control can double up the signal volume, so when the Level control is at 50%, you have 1:1 Level from input to output.

Use the Envelope Follower to turn down the Level according to the input signal, to create compressor effects. The modulation system offers all kinds of Level modifications, like stuttering, tremolos, compressors.

Dry/Wet

Here you mix between input and output signal. Especially the Vowel Mode often requires not a full wet mix for best performance. The modulation system can be used to blend in the filter in every possible way.

Filter Types

Select the filter type here. We included Moog and MS filter models, as well as some Sugar Bytes creations like the « 030 Lowpass ». 030 and MS models are oversampled for best performance at the whole frequency range. The (sat) filter models include a saturator, so turning up the resonance will not turn down the input level. These are two existing philosophies about handling the Resonance, so we decided for both ways.

Available are the following filter types:

Highpass
Cuts off low frequencies according to the cutoff frequency.

2Pole: 12db Highpass from a SVF (State Variable Filter)

2Pole(Sat): 12db Highpass SVF including saturation. See text above.

4Pole: 24db Highpass SVF

Diode MS: 12db 1pole Highpass, based on the MS diode ladder filter.

Bandpass
Cuts off low and high frequencies and passes thru the cutoff frequency. Best filter for talkbox effects using the Vovel Mode.

2Pole: 12db Bandpass SVF

2Pole(SAT): 12db Bandpass with saturation (see text above)

4Pole: 24db Bandpass SVF

Diode MS: 12db Bandpass, based on the MS diode ladder filter.

Ladder MG: 24db Band/Lowpass filter, based on the Moog Ladder Filter.

Lowpass
Cuts off high frequencies according to the cutoff frequency.

2Pole: 12db Lowpass SVF

2Pole(SAT): 12db Lowpass SVF with saturation (see text above)

4Pole: 24db Lowpass SVF

8Pole: 48db Lowpass SVF

Ladder MG: 24db Lowpass, based on the Moog Transistor Ladder filter

Diode MS: 12db Lowpass, based on the MS Diode Ladder filter

O3O: 18db Lowpass, based on the Roland TB-303 filter.

Special
This category contains filter types beyond the HP/BP/LP classics.
Mid Boost: 24db SVF Lowpass/Bandpass combination

Peak: Creates a peak at the cutoff frequency without losing original audio.

Notch: Creates a hole at the cutoff frequency, keeping original audio.

Band Reject: Erases frequencies around the Cutoff Frequency and creates two peaks with high resonance, very good in VOWEL MODE.

Mid Clear: 12db Highpass/Lowpass combination which eliminates the mid frequencies between them, while they run away from each other as you turn up the cutoff.

Comb: A feedback delayline with delaytimes according to the cutoff frequency. Should be used with high resonance. This filtertype is working very good with the Vowel Mode and can produce intensive flanger- and chorus-effects in classic mode.

Vowel Mode

Put the filter into Vowel mode, where the Cutoff knob is used to fade between two vowel frequencies. Bandpass and Comb Filter modes are recommended for achieving the best vowel sounds. A high Resonance is usually needed to create the « Formant » necessary for the vocal sound.

[i:]   as in f**ee**t

[e]   as in m**e**n

[æ]   as it b**a**t

[y]   as in tu (French)

[ə]   as in th**e**

[ɑ]   as in f**a**ther

[ɔ]   as in **a**we

[o]   as in copy

[u]   as in boot

Long press a phonetic symbol to modulate the Vowel Mode. You can see the phonetic symbols switching. Tap the phonetic symbol to see the basic value.
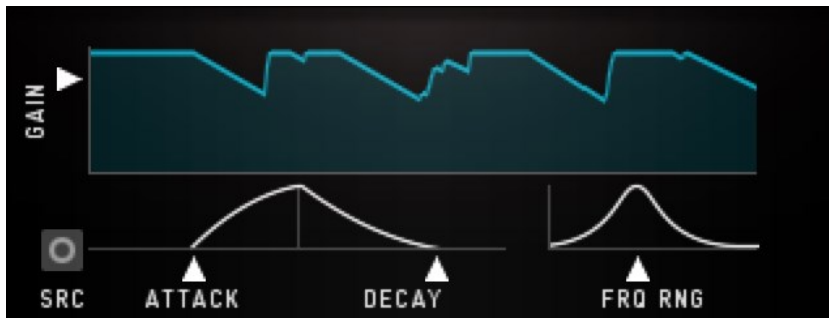
Modulation Section

The modulation section includes 4 modulation engines that can modulate each other as well.

Envelope Follower

Follows the amplitude of the incoming audio signal to produce a control curve.

Gain

Set the level of the controller signal here.

Attack

Smoothes the rising part of the controller signal.

Decay

Smoothes the falling part of the controller signal.

Freq Range

A Bandpass filter in the sidechain circuit allows frequency selective envelope following. That way you can grab a kick, a snare or other signals to produce a controller signal. Turn the knob down to bypass the filter and feed the whole spectrum into the Envelope Follower.

Source

The Envelope Follower can be provided with the input signal or with the output signal, to create the envelope from.
Since the Filters might create high levels, the Envelope Follower can be used to modulate the Level control.

The Circle symbol indicates that the WOW audio output is used for the Envelope Follower.

The Line symbol indicates that the WOW audio input is used to create the envelope.

LFO

An oscillator generates a control curve with different waveforms.
The LFO has three **sync modes**:

1. Sync, Audio Trig: The Audio Trigger button will restart the LFO along with the incoming audio. Use the Sens control to adjust the incoming audio to your desired retrigger rate.
Put the Sens fader to the left to create more triggers, put Sens to the right to create less triggers.

2. Free, Audio Trig: The LFO runs at divisions of your host bpm and
can be retriggered by the incoming audio signal.

3. Songposition: The songposition is used to generate the LFO waveform. Using that method, the LFO wave is absolutely reproducable
in every position of your song. For example, on beat 132 the waveform will be in the same position, no matter if you started the playback at beat 12 or beat 36.

Wave

The LFO waveform. Sine, Saw, Square, Triangle and random are available.

Rate

The speed of the LFO curve. Always in sync with your song.

Audio Trig

The LFO can be retriggered by the audio signal.

Trig Sens

Sensitivity of the LFO retrigger.

Step Sequencer

A sequencer with 16 steps generates a control curve.

Tempo

Speed of the Sequencer. It's always in sync with your song.

Direction

The reading-direction. Forward, Backward, Pingpong or Random.

Glide

Glides the sequence steps to a continuous curve.

Random

Selects a random control curve.

Wobbler

The Wobble Knob lets you choose from 12 LFO Speeds and 16 Waveforms.

 Special about the Wobble LFO are the fixed values.
The snowflake indicated Freeze mode. Like a sample and hold module,
the Freeze will maintain the last active value as long as it is selected.
If the Wobble Knob turns from a sine wave to the snowflake, the last
value of the sine wave will be held until another wave form is selected.

Furthermore, there are 5 fixed valued available. These values are
0%, 25%, 50%, 75% and 100% and are displayed by square with
different sizes. These values make it possible to use the Wobble Generator
like a step sequencer.

The central wave form control sets all wave forms at once.

The Random Button sets a random wave form situation. Can be modulated, in order to
auto-randomize at certain events.

This button determines if the LFO Speeds are switched or faded.

Here you can set the starting phase of the wobble LFO. This determines if the modulation
will go upwards or downwards after you hit a note.

Modulation Assignment

In order to assign modulators to their targets, you have two choices.
Longpress the target parameter to choose from the available modulators,
or select the source-modulator and find the target parameters on the bottoms of the modulators area.

The Mod-Amount knobs control the modulation intensity from -100% to +100%. The modulation can be set positive or negative, so it will add or subtract with the value given by the parameter. The Reset Button resets all modulations to zero. Assigned modulations can be identified by the moving ring around the parameter.

Double tap a control to set it to zero.

Longpress a control to open the MIDI Learn function.
Using MIDI Learn, you can control a WOW2 parameter with an external MIDI controller.
Just assign a MIDI track to WOW2 and use it to send MIDI CC´s to WOW2.

These are the Modulation Assignments below the Modulators.
Each Modulator has its own set of 6 assignment screens.
The Amount Controls can be MIDI learned and automated:

Main Filter Assignment

LFO Assignment

Env Follower Assignment

Step Seq Assignment

Wobbler Assignment

Vowel Assignment

Questions?

WOW2 makes no sound

Are the level meters showing an Audio Signal?
If Audio In works, but Audio Out is silent, your filter setting might be filtering out all audible frequencies (HP too high?, LP too Low?).

Level could be modulated to zero. Long press Level to check out the modulation assignments.

Have I found a bug?

Please write to support@sugar-bytes.de

Impressum